THE ANACONDA COMPANY
Mineral Resources Group
660 BANNOCK STREET
DENVER, COLORADO 80204

A-0349

INTER-COMPANY CORRESPONDENCE

To: Frank J. Laird, Jr. Date: August 18, 1978

From: Jack Whyte JW Subject: Rico Project

On August 14, 1978 Dan Himelspach and I visited the Rico Project. The purpose of the visit was to evaluate environmental problems in general and those associated with mine water disposal in particular. (Refer to letter 8/16/78 - Daniel C. Himelspach to files).

All of the Rico Argentine Mining Company operations have been shut down since December 1977.

At the time of our visit, all of the mine water was being discharged from the St. Louis Tunnel. This discharge was given as 600 GPM but I believe it might be as high as 1000 GPM. No pumping is required. Water discharged from the St. Louis Tunnel flows through a series of nine (9) small settling ponds and is then discharged to the Dolores River. Rico Argentine has an NPDES permit for this discharge. Permit conditions are not being strictly followed. This is probably due to the shutdown status of the property. The last analytical results showed all parameters to be in compliance.

Rico Argentine has two other NPDES permits. One applies to the discharge of mine water from the Blaine Tunnel which discharges into Silver Creek and thence into the Dolores River. The other is for the lead-zinc mill discharge which would also enter the Dolores River via Silver Creek. At the time of our visit the water developed in the Blaine Tunnel was being diverted inside the mine to be discharged via the St. Louis Tunnel. O. L. Jahnke, the Mine Manager, advised that this was being done because E.P.A. had told him that the mercury concentration in the Blaine discharge exceeded the permit limitation. Blending the Blaine discharge with the St. Louis discharge was intended to rectify this problem. I should point out that the mercury permit limitation is very low (0.0002 mg/l). This is probably because the Dolores River is heavily fished just below the operations and mercury is strongly bio-accumulative. The lead-zinc mill ran for one year and never discharged under the permit.

The proposed mine dewatering project consists of removing

fallen rock from the St. Louis Tunnel. Water now impounded behind these small "dams" will increase the flow from the tunnel as the "dams" are removed but the increase will be nominal and with the equalization effect of the settling ponds should be marginally perceptible at the discharge point.

CONCLUSION &
RECOMMENDATION

The removal of the fallen rock from the St. Louis Tunnel, should have minimal impact on the wastewater system involved. As we discussed with Dan Himelspach, removal can and should be accomplished under Rico Argentine's permit.

Installing the structures required for a mining and milling operation of any appreciable size in the area available and with existing environmental constraints will be a formidable engineering task. We recommend that this operation be reviewed as to engineering feasibility as soon as practicable.

Water samples were taken during the visit as shown on the map attached. Results will be made available as soon as the analyses are completed.

A schematic diagram of the water flows is also attached.

JRW/cb

xc: J. F. Anderson
E. C. Tidball
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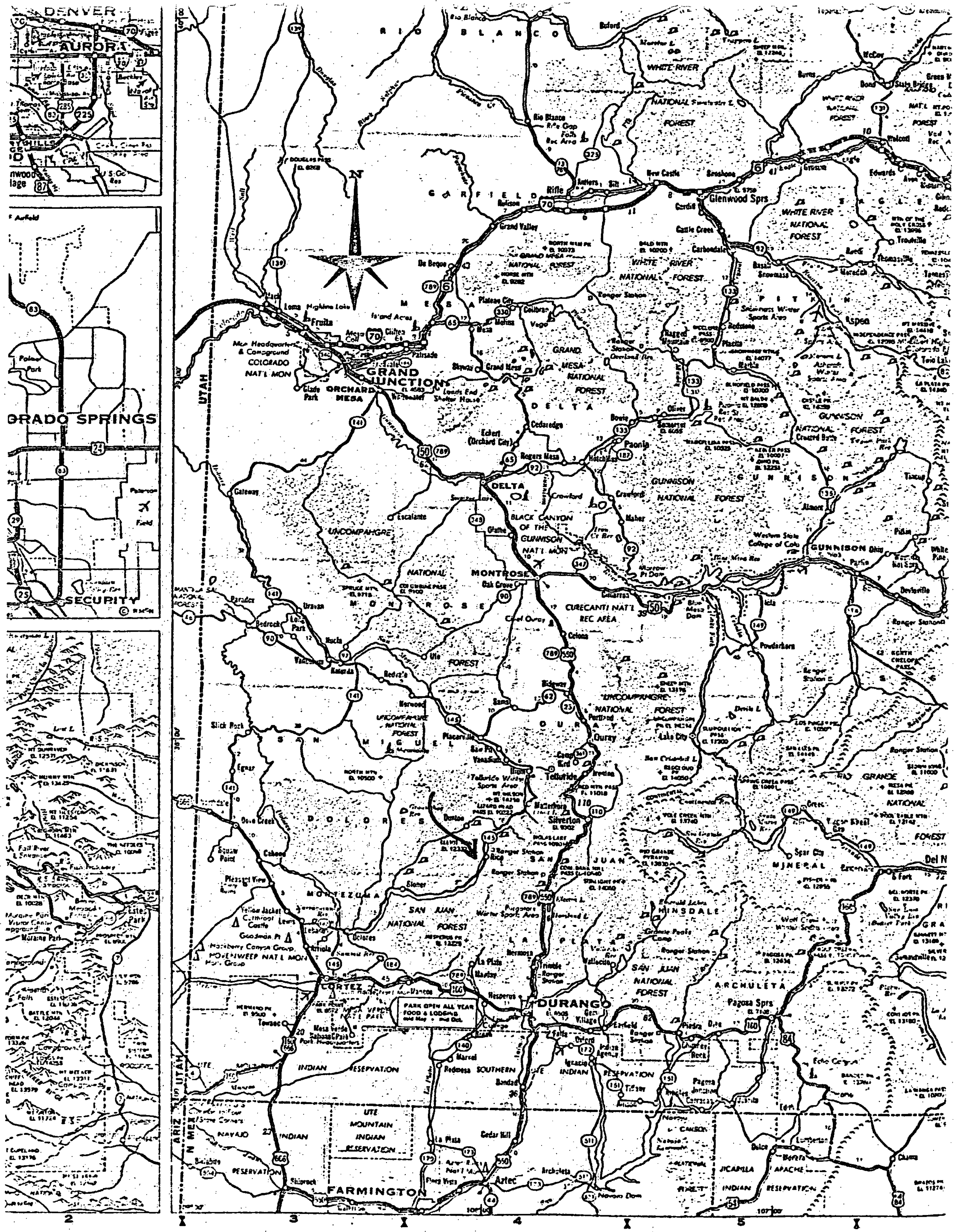
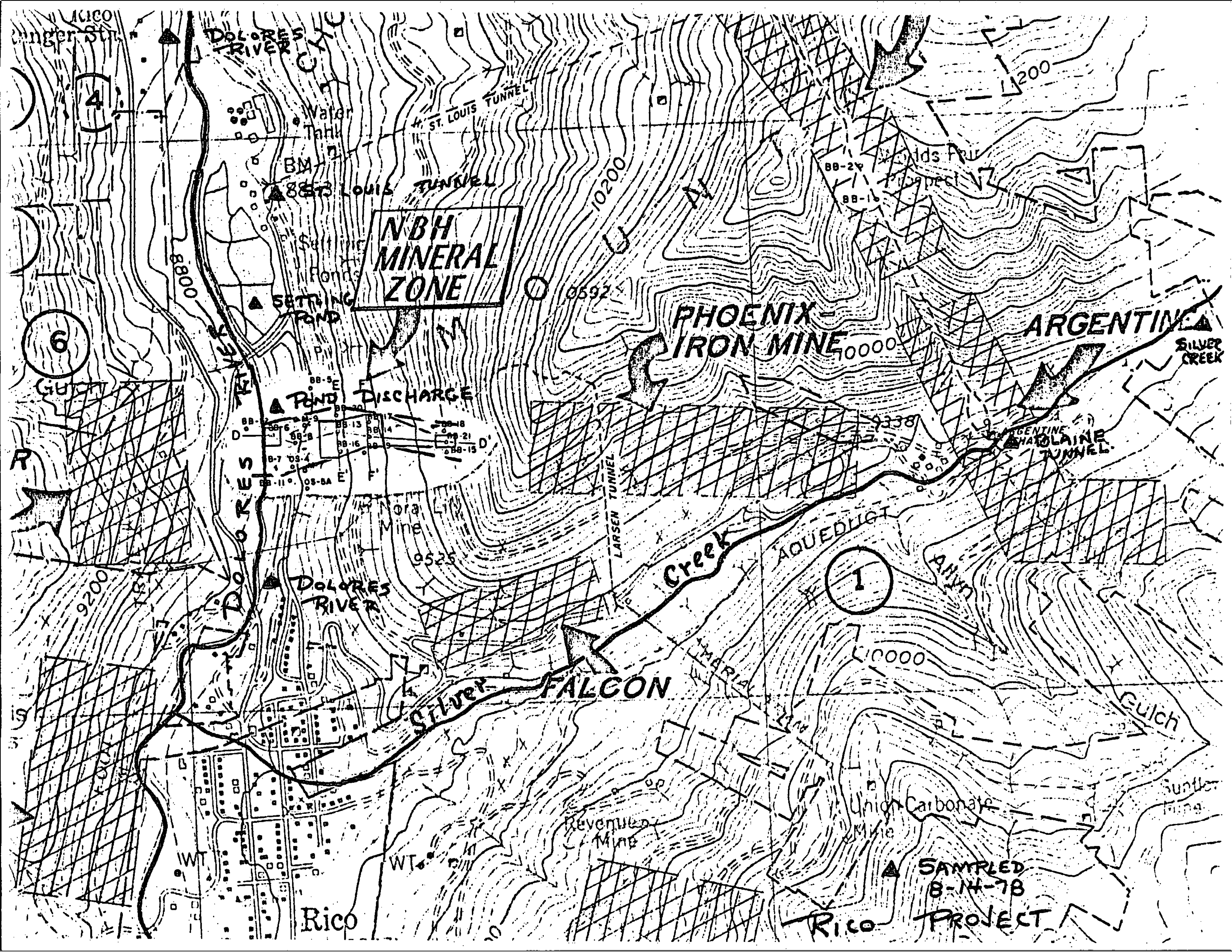
D. C. Himelspach
S. M. Williams
R. L. Dent
K. G. Reick



DENVER
AURORA
GRADO SPRINGS
SECURITY
RIO BLANCO
WHITE RIVER
NATIONAL FOREST
GARFIELD
Rifle
New Castle
Glenwood Sprs
Carbondale
Basalt
Aspen
PITKIN
EAGLE
MESA
Fruita
GRAND JUNCTION
ORCHARD MESA
COLORADO NAT'L MON
GRAND MESA NATIONAL FOREST
DELTA
Cedaredge
Paonia
Hotchkiss
Crawford
GUNNISON NATIONAL FOREST
GUNNISON
BLACK CANYON OF THE GUNNISON NAT'L MON
MONTROSE
CURECANTI NAT'L REC AREA
UNCOMPAHGRE
NATIONAL FOREST
MONTROSE
Gateway
Uravan
Naturita
Nucla
Norwood
Placerville
Ridgway
OURAY
Ouray
Telluride
Silverton
Lake City
SAN MIGUEL
DOLORES
Rico
SAN JUAN
HINSDALE
MINERAL
Creede
MONTEZUMA
Dove Creek
Cahone
Dolores
CORTEZ
Mancos
HOVENWEEP NAT'L MON
SAN JUAN NATIONAL FOREST
LA PLATA
DURANGO
ARCHULETA
Pagosa Sprs
UTE MOUNTAIN INDIAN RESERVATION
SOUTHERN UTE INDIAN RESERVATION
NAVAJO INDIAN RESERVATION
JICARILLA APACHE INDIAN RESERVATION
FARMINGTON
Aztec
Shiprock
Chama
UTAH
ARIZ
N MEX
PARK OPEN ALL YEAR
FOOD & LODGING
2
3
4
5

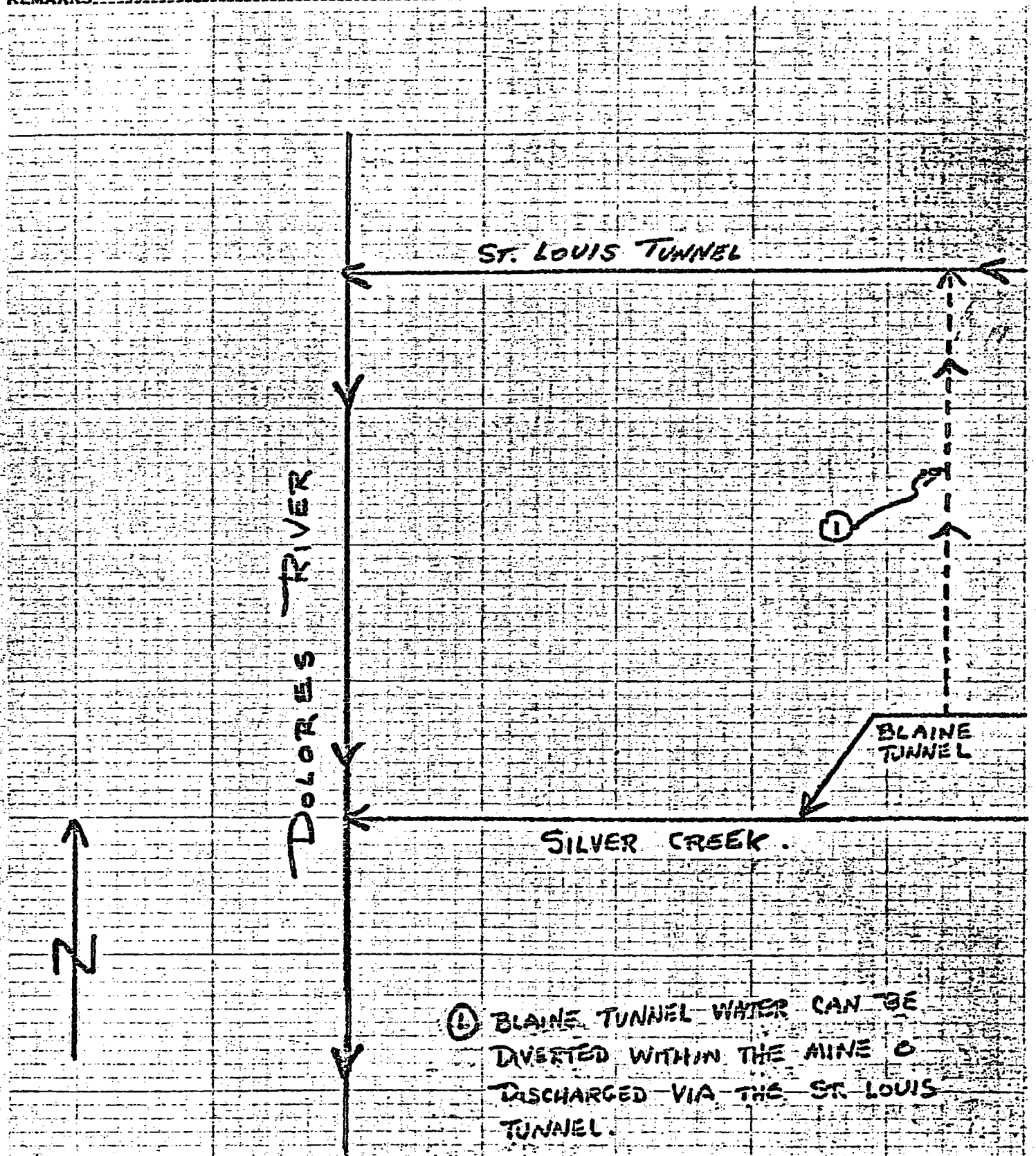


DOLORES RIVER
ST. LOUIS TUNNEL
Water Tank
BM
ST. LOUIS TUNNEL
NBH MINERAL ZONE
SETTLING POND
POND DISCHARGE
PHOENIX IRON MINE
ARGENTINE
SILVER CREEK
ARGENTINE SHAFT
BLAINE TUNNEL
LARSEN TUNNEL
AQUEDUCT
Allyn
Gulch
Silver Creek
FALCON
MARIA
Nora Lily Mine
Revenue Mine
Union Carbonate Mine
DOLORES RIVER
SAMPLED 8-14-78
RICO PROJECT
Rico
WT
Gulch
10200
10000
9338
9525
9200
8800
1
4
6

ENVIRONMENTAL ENGINEERING DEPARTMENT

DATE 8-16-78 SUBJECT SCHEMATIC - MINE DISCHARGES PLANT RICO ARGENTINE

REMARKS WATER SAMPLES TAKEN 8-14-78 BY JRW FILE RICO Prod.



(1) BLAINE TUNNEL WATER CAN BE DIVERTED WITHIN THE MINE & DISCHARGED VIA THE ST. LOUIS TUNNEL.